

REMARKS

Claims 1 and 12 have been amended. No new matter has been introduced. Claims 1-3, 6-9, 11, 12, 14, 16-20, 34, 36, 38-42, 46, and 51 are pending. Claims 1-3, 6-9, 11, 12, 14, 16-20, 34, 36, 38-42, 46, and 51 stand rejected. Applicant reserves the right to pursue the original claims and other claims in this application and in other applications.

Claims 1-3, 6-9, 11, 12, 14, 16-20 and 34, 36, 38-42, 46, and 51 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Amagai (U.S. Patent No. 6,232,661) in combination with Forray (U.S. Pub. No. 2002/0062923). The rejection is respectfully traversed and reconsideration is respectfully requested.

As stated in the Office Action, “nothing in the claim language precludes an adhesive from extending past edges of the die and being localized under the die.” (Office Action at 6). Claims 1 and 12 have been amended to add this limitation.

The claimed inventions relate to a prepackaged semiconductor device assembly. As such, independent claim 1 recites a prepackaged semiconductor device assembly comprising “a solder mask over a substrate a die conductive paths connecting contacts on said die with contacts in said substrate; and an adhesive layer which is only partially cured for adhering said die to said solder mask, and being localized under the die such that no part of the adhesive layer extends past an edge of the die such that no part of the adhesive layer extends past an edge of the die.”

Independent claim 12 recites a prepackaged semiconductor device assembly comprising “a solder mask on a substrate; a die; electrical contacts on said substrate and said die, each contact on said die being connected to a respective contact on said substrate, said electrical contacts being devoid of contamination caused by outgassing from said solder mask; and an adhesive layer which is only partially cross-linked affixing said die to said solder mask, and being localized under the die.”

The references, alone or in combination, fail to disclose, teach, or suggest a prepackaged semiconductor device assembly comprising “a solder mask over a substrate a die conductive paths

connecting contacts on said die with contacts in said substrate; and an adhesive layer which is only partially cured for adhering said die to said solder mask, and [is] localized under the die such that no part of the adhesive layer extends past an edge of the die,” as recited by claim 1. Amagai’s die attaching tape (8) extends beyond the surface of the die (2), as illustrated in Amagai’s FIG. 3 (reproduced below).

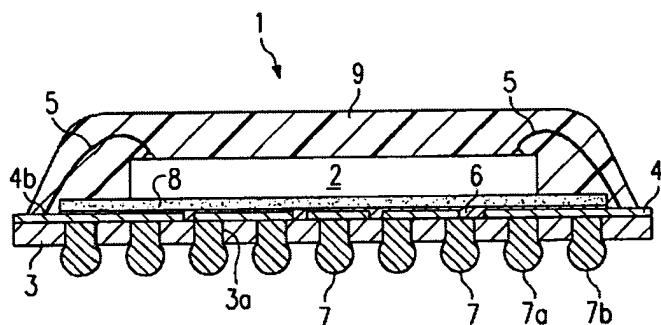


FIG. 3

Amagai specifically teaches that the attaching tape (8) extends beyond the outer edge of the chip in order to cover the connecting lands 4(a). *See Amagai at 6:58-7:3.* Amagai teaches away from a prepackaged semiconductor device assembly having “an adhesive layer which is only partially cured for adhering said die to said solder mask, and [is] localized under the die such that no part of the adhesive layer extends past an edge of the die,” as recited by claim 1. *See Amagai at 2:30-41.* Further, as the Office Action admits (at page 3), Amagai fails “to disclose a partially-cured adhesive layer.”

Forray does not cure the deficiencies of Amagai; Forray also fails to disclose, teach, or suggest a “an adhesive layer which is only partially cross-linked affixing said die to said solder mask, and being localized under the die such that no part of the adhesive layer extends past an edge of the die,” as recited by claim 1.

For at least this reason, Applicant respectfully submits that claim 1 is allowable over the references of record. Claims 2, 3, 6-9, 11, 34, 38, 39, 41, and 42 depend from claim 1, and are allowable for at least the same reasons set forth above with respect to claim 1 and on their own

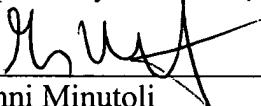
merits. Accordingly, Applicant respectfully requests that the rejection be withdrawn and the claims allowed.

Claim 12 recites "an adhesive layer which is only partially cross-linked affixing said die to said solder mask, and being localized under the die such that no part of the adhesive layer extends past an edge of the die," and is patentable for at least the same reasons above with respect to claim 1 and on its own merit. Claims 14, 16-20, 36, 40, 46, and 51 depend from claim 12, and are allowable for at least the same reasons and on their own merits. Accordingly, Applicant respectfully requests that the rejection be withdrawn and the claims allowed.

In view of the above, Applicant believes the pending application is in condition for allowance. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1073, under Order No. M4065.0226/P226.

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Respectfully submitted,

By 
Gianni Minutoli

Registration No.: 41,198
Dipu A. Doshi
Registration No.: 60,073
DICKSTEIN SHAPIRO LLP
1825 Eye Street, NW
Washington, DC 20006-5403
(202) 420-2200
Attorneys for Applicant